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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/582,813

**Applicant(s)**

AHN ET AL.

**Examiner**

DAO H. NGUYEN

**Art Unit**

2818

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09/15/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) 1-11, 18, 19, 37, 38, and 49-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-17, 20-36 and 39-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 06/04/07.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This Office Action is in response to the communications dated 09/15/2008.

Claims 1-56 are active in this application.

### Election/Restriction

2. Applicant made a provisional election **with traverse** to prosecute the invention of Group I, Species 3, claims 12-17, 20, 21-36, 39, and 40-48, is acknowledged.

The traversal is on the ground(s) that, see the election paper. This is not found persuasive.

MPEP section 1893.03(d) states that "If the examiner finds that a national stage application lacks unity of invention under § 1.475, the examiner may in an Office action require the applicant in the response to that action to elect the invention to which the claims shall be restricted. Such requirement may be made before any action on the merits but may be made at any time before the final action at the discretion of the examiner. Review of any such requirement is provided under §§ 1.143 and 1.144." (37 CFR 1.499).

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This application contains the inventions or groups of inventions (as specified in the previous Office Action) which are not so linked as to form a single general inventive concept under PCT Rule 13.1. Restriction for examination purposes as indicated in the previous Office Action is proper and in accordance with 37 CFR 1.499, because all

these inventions listed in this action are independent or distinct for the reasons given previously and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification;
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;
- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
- (d) the prior art applicable to one invention would not likely be applicable to another invention;
- (e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Hence, a Restriction Requirement under 35 U.S.C. 121 and 372 is deemed proper and is therefore made **FINAL**.

Claims 1-11, 18, 19, 37, 38, and 49-56 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a non-elected group there being no allowable generic or linking claim.

Applicant has the right to file a divisional application covering the subject matter of the non-elected claims.

### Acknowledges

3. Receipt is acknowledged of the following items from the Applicant.

Information Disclosure Statement (IDS) filed on 06/04/2007. The references cited on the PTOL 1449 form have been considered.

Applicant is requested to cite any relevant prior art if being aware on form PTO-1449 in accordance with the guidelines set for in M.P.E.P. 609.

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### Specification

4. The specification has been checked to the extent necessary to determine the presence of possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

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### Claim Objection

5. The claim is objected to for the following reason:

Claim 25 is believed to depend on claim 24 rather than on claim 12.

Claim 31 is believed to depend on claim 30 rather than on claim 21.

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Appropriate correction(s) is/are required.

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**Claim Rejections - 35 USC § 102**

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§. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim(s) 12, 16, 30, and 33 are rejected under 35 U. S. C. § 102 (b) as being anticipated by Van Dau et al. (US 6,191,581).

Regarding to claim 12, Van Dau discloses a planar Hall effect magnetic sensor, shown in figs. 1-4, 6, comprising:

an active area 1 comprising a magnetic film that exhibits both planar Hall effect and biaxial magnetic anisotropy (col. 3, lines 40-64);

a first pair of conductive leads 2-2' arranged on opposing sides of the active area 1 for driving electrical current across the active area 1 in a first direction (XX'); and

a second pair of conductive leads 3-3' arranged on opposing sides of the active area 1 in a second direction (YY') perpendicular to the first direction (XX') for measuring

voltage across the active area 1 in the second direction. See further col. 2, line 8-col. 3, line 18.

Regarding to claim 16, Van Dau discloses the magnetic sensor wherein the magnetic film 1 has two easy axes that are arranged perpendicular to each other and are aligned with the first pair of conductive leads 2-2' and the second pair of conductive leads 3-3'. See col. 3, lines 43-46.

Regarding to claim 30, Van Dau discloses a magnetic bit cell for use in a planar Hall effect magnetoresistive random access memory (MRAM) device, shown in figs. 1-4, 6, the magnetic bit cell comprising:

an active area 1 comprising a magnetic film that exhibits both planar Hall effect and biaxial magnetic anisotropy (col. 3, lines 40-64);

a first pair of conductive leads 2-2' arranged on opposing sides of the active area 1 for driving electrical current across the active area in a first direction (XX'); and

a second pair of conductive leads 3-3' arranged on opposing sides of the active area 1 in a second direction (YY') perpendicular to the first direction for measuring voltage across the active area in the second direction. See further col. 2, line 8-col. 3, line 18.

Regarding to claim 33, Van Dau discloses the magnetic bit cell wherein the conductive leads are copper. See col. 5, lines 53-65.

Deleted: 6. Claim(s) \*\*\* is/are rejected under 35 U. S. C. § 102 (b) as being anticipated by \*\*\* (US Patent No. \*\*\*), ¶

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim(s) 13-15, 24-29, 31, 32, 34 and 43-48 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Van Dau et al. (US 6,191,581), as applied to claim 12 above, and further in view of Manako et al. (US 5,721,654).

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Regarding to claims 13 and 31, Van Dau discloses the magnetic sensor comprising all claimed limitations, as discussed above. Van Dau does not specifically teach that the magnetic film is epitaxially grown on a perovskite single crystal; however, Van Dau does teach that the magnetic film 1 is formed on a substrate S (col. 3, lines 39-43); Although Van Dau is silent on the material of the substrate S, it would have been obvious to one having ordinary skill in the art at the time the invention was made that any conventionally suitable material could be used for the substrate of Van Dau.

Manako discloses a magnetic sensor, shown in figs. 1, 5-11, comprising a magnetic film 1 which is epitaxially grown on a perovskite single crystal substrate 2. See col. 3, lines 19-25; col. 5, lines 18-23.



It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a perovskite single crystal substrate, as that of Manako, for the substrate S of Van Dau. Such selection would fully fulfill the invention of Van Dau without making any change in the spirit and/or scope of Van Dau's invention. It would have been obvious that selecting a known material on the basis of its suitability for the intended use is just within the general skill of a worker in the art. *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000); *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1316, 50 USPQ2d 1161, 1165 (Fed. Cir. 1999); *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus. Inc.*, 145 F.3d 1303, 1309, 46 USPQ2d 1752, 1757 (Fed. Cir. 1998); *Lockheed Aircraft Corp. v. United States*, 193 USPQ 449, 461 (Ct. Cl. 1977); *Data Line Corp. v. Micro Technologies, Inc.*, 813 F.2d 1196, 1 USPQ2d 2052 (Fed. Cir. 1987). Furthermore, MPEP § 2144.07 states that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) (Claims to a printing ink comprising a solvent having the vapor pressure characteristics of butyl carbitol so that the ink would not dry at room temperature but would dry quickly upon heating were held invalid over a reference teaching a printing ink made with a different solvent that was nonvolatile at room temperature but highly volatile when heated in view of an article which taught the desired boiling point and vapor pressure characteristics of a solvent for printing inks and a catalog teaching the boiling point and vapor pressure characteristics of butyl carbitol; "Reading a list and selecting a known compound to meet known requirements is no

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more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle. 325 U.S. at 335, 65 USPQ at 301.). See also In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of known plastic to make a container of a type made of plastics prior to the invention was held to be obvious); Ryco, Inc. v. Ag-Bag Corp., 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir., 1988) (Claimed agricultural bagging machine, which differed from a prior art machine only in that the brake means were hydraulically operated rather than mechanically operated, was held to be obvious over the prior art machine in view of references which disclosed hydraulic brakes for performing the same function, albeit in a different environment.). See also MPEP § 2183.

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Regarding to claims 14 and 32, Van Dau/Manako discloses the magnetic sensor wherein the magnetic film 1 is deposited on the perovskite crystal in the shape of a cross having arm portions of approximately equal length, and the first pair of conductive leads 2-2' and the second pair of conductive leads 3-3' are coated on the arm portions of the magnetic film 1, wherein a middle portion of the magnetic film 1 is left uncovered by the conductive leads. See fig. 3 of Van Dau.

Regarding to claim 15, Van Dau/Manako discloses the magnetic sensor wherein the conductive leads are copper. See col. 5, lines 53-65 of Van Dau.

Regarding to claims 24 and 43, Van Dau/Manako discloses the magnetic sensor comprising all claimed limitation.

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Note that the discussed invention is directed to a product wherein the claimed limitation is directed to a process. The process limitation(s) of how the magnetic film being formed has/have no patentable weight in claim drawn to structure. MPEP §2113 states that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 954, 966 (Fed. Cir. 1985). "A "product by process" claim is directed to the product per se, no matter how actually made. In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Fessmann, 180 USPQ 324; In re Avery, 186 USPQ 161; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue) and In re Marosi et al, 218 USPQ 289, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product by a new method is not patentable as a product, whether claimed in "product by process" claims or not.

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Note that applicant has the burden of proof in such cases, as the above caselaw makes clear. See MPEP §2113.

Therefore, the recitation(s) in claims 24 and 44 is/are considered process(es) of making product and is/are given no patentable weight in a product-by-process claim and is/are thus non-limiting(s).

Regarding to claims 25 and 44, Van Dau/Manako discloses the magnetic sensor wherein the deposited film 1 has a thickness between about 4 nm and about 100 nm. See col. 3, lines 47-50 of Van Dau.

Regarding to claims 26 and 45, Van Dau/Manako discloses the magnetic sensor wherein the deposited film has a thickness between about 10 nm and about 50 nm. See col. 3, lines 47-50 of Van Dau.

Regarding to claims 27 and 46, Van Dau discloses the magnetic sensor comprising all claimed limitations, as discussed above. Although Van Dau is silent on the material of the magnetic thin film, it would have been obvious to one having ordinary skill in the art at the time the invention was made that any conventionally suitable material could be used for the magnetic thin film of Van Dau.

Manako discloses a magnetic sensor, shown in figs. 1, 5-11, comprising a magnetic thin film 1 of  $L_{1-x}A_xMO_3$  or  $La_{1-x}A_xMnO_3$ , wherein x ranges from 0.01-0.5 (col. 12, line 66-col. 13, line 16; see also col. 3, lines 19-25; col. 5, lines 18-23).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a magnetic thin film of  $\text{La}_{1-x}\text{Al}_x\text{MO}_3$  or  $\text{La}_{1-x}\text{Al}_x\text{MnO}_3$  as that of Manako for the magnetic thin film of Van Dau. Such selection would fully fulfill the invention of Van Dau without making any change in the spirit and/or scope of Van Dau's invention. It would have been obvious that selecting a known material on the basis of its suitability for the intended use is just within the general skill of a worker in the art. *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000); *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1316, 50 USPQ2d 1161, 1165 (Fed. Cir. 1999); *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus. Inc.*, 145 F.3d 1303, 1309, 46 USPQ2d 1752, 1757 (Fed. Cir. 1998); *Lockheed Aircraft Corp. v. United States*, 193 USPQ 449, 461 (Ct. Cl. 1977); *Data Line Corp. v. Micro Technologies, Inc.*, 813 F.2d 1196, 1 USPQ2d 2052 (Fed. Cir. 1987). Furthermore, MPEP § 2.144.07 states that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) (Claims to a printing ink comprising a solvent having the vapor pressure characteristics of butyl carbitol so that the ink would not dry at room temperature but would dry quickly upon heating were held invalid over a reference teaching a printing ink made with a different solvent that was nonvolatile at room temperature but highly volatile when heated in view of an article which taught the desired boiling point and vapor pressure characteristics of a solvent for printing inks and a catalog teaching the boiling point and vapor pressure characteristics of butyl carbitol. "Reading a list and selecting a known compound to meet known

requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle." 325 U.S. at 335, 65 USPQ at 301.). See also In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of known plastic to make a container of a type made of plastics prior to the invention was held to be obvious); Ryco, Inc. v. Ag-Bag Corp., 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988) (Claimed agricultural bagging machine, which differed from a prior art machine only in that the brake means were hydraulically operated rather than mechanically operated, was held to be obvious over the prior art machine in view of references which disclosed hydraulic brakes for performing the same function, albeit in a different environment.). See also MPEP § 2183.

Regarding to claims 28 and 47, Van Dau/Manako discloses the magnetic sensor wherein the rare earth metal is lanthanum. See col. 12, line 66-col. 13, line 16; see also col. 3, lines 19-25; col. 5, lines 18-23 of Manako.

Regarding to claims 29 and 48, Van Dau/Manako discloses the magnetic sensor wherein the alkaline earth metal is selected from the group consisting of strontium, calcium, and barium. See col. 12, line 66-col. 13, line 16; see also col. 3, lines 19-25; col. 5, lines 18-23 of Manako.

Regarding to claim 34, Van Dau/Manako discloses the magnetic bit cell comprising all claimed limitations, as discussed above, and further including the

magnetic film being epitaxially grown on the single crystal so that easy axes of the thin film are perpendicular to each other. See col. 3, lines 40-46. Van Dau/Manako is silent on whether the easy axes are at a 45-degree angle relative to the direction of the current.

However, similarly to what is discussed on page 17, lines 5-15 of the pending specification, in the invention of the prior art, col. 1, lines 29-67, Van Dau teaches that the voltage measurement, as well as the resistivity, are varying in accordance to the angle between the magnetization of the film and the measurement current.

Hence, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to determine which configuration would be best to ensure maximum sensitivity, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 517 F.2d 272, 205 USPQ 215 (CCPA 1980).

10. Claim(s) 17, 20-23, 35, 36, and 39-42 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Van Dau et al. (US 6,191,581), in view of Taguchi et al. (US 5,361,226).

Regarding to claim 17, Van Dau discloses the magnetic sensor comprising all claimed limitations, as discussed above, except for further comprising two conductive films deposited parallel to the first pair of conductive leads and the second pair of conductive leads and separated from the active area by one or more insulating layers, wherein said two conductive films are used to generate a magnetic field.

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Taguchi discloses a magnetic thin film device, shown in figs. 11, 16, 17, comprising a magnetic thin film active area 11, 12 or 13 (fig. 11), a first pair of conductive leads 2a, 2b, or 2c on opposing sides of the active layer for driving electrical current across the active area in a first direction, and a pair of lead 3a, 3b, or 3c on opposing sides of the active layer for measuring voltage across the active area in a second direction perpendicular to the first direction (fig. 16). Taguchi further discloses two conductive films 4 and 5 (fig. 17) deposited parallel to the first pair of conductive leads 2 and the second pair of conductive leads 3 and separated from the active area by one or more insulating layers, wherein said two conductive films are used to generate a magnetic field. See col. 7, line 1-col. 8, line 33.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Van Dau so that it would include two conductive films, as conductive films 4, 5 taught by Taguchi, in order to better control the magnetization of the magnetic film, thereby a better performance device would be obtained. See col. 7, line 1-col. 8, line 33 of Taguchi.

Regarding to claim 20, Van Dau/Taguchi discloses the magnetic sensor wherein one of the conductive films is positioned above the active area of the magnetic sensor (conductive film 5 is above the active area, fig. 17) separated from the active area by a first insulating layer (silicon nitride, col. 7, line 67-col. 8, line 10) and the other

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conductive film (conductive film 4, fig. 17) is positioned below the active area of the magnetic sensor separated from the active area by a second insulating layer.

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Regarding to claim 21, Van Dau/Taguchi discloses the magnetic sensor wherein the conductive film is selected from the group consisting of copper, aluminum, and gold. Col. 7, lines 54-67.

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Regarding to claims 22 and 23, Van Dau/ Taguchi discloses the magnetic sensor comprising all claimed limitations, except for expressly stating that wherein the one or more insulating layers are selected from the group consisting of aluminum oxides, magnesium oxides, and strontium titanite. However, Van Dau/Taguchi does disclose that the insulating layer is a SiNx or the like (col. 7, line 67-col. 8, line 10 of Taguchi).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made that SiN insulating layer or the like taught by Taguchi could be replaced by an insulating layer such as aluminum oxides, magnesium oxides, or strontium titanite since they are well known high dielectric constant materials that one of ordinary skills in the art would have recognized the interchangeability among them. It would have been obvious that selecting a known material on the basis of its suitability for the intended use is just within the general skill of a worker in the art. *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56USPQ2d 1305 (Fed. Cir. 2000); *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1306, 1316, 50 USPQ2d 1161, 1165 (Fed. Cir. 1999); *Chiuminatta*

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Concrete Concepts, Inc. v. Cardinal Indus. Inc., 145 F.3d 1303, 1309, 46 USPQ2d 1752, 1757 (Fed. Cir. 1998); Lockheed Aircraft Corp. v. United States, 193 USPQ 449, 461 (Ct. Cl. 1977); Data Line Corp. v. Micro Technologies, Inc., 813 F.2d 1196, 1 USPQ2d 2052 (Fed. Cir. 1987). Furthermore, MPEP § 2144.07 states that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in Sinclair & Carroll Co. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945) (Claims to a printing ink comprising a solvent having the vapor pressure characteristics of butyl carbitol so that the ink would not dry at room temperature but would dry quickly upon heating were held invalid over a reference teaching a printing ink made with a different solvent that was nonvolatile at room temperature but highly volatile when heated in view of an article which taught the desired boiling point and vapor pressure characteristics of a solvent for printing inks and a catalog teaching the boiling point and vapor pressure characteristics of butyl carbitol; "Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jigsaw puzzle." 325 U.S. at 335, 65 USPQ at 301.). See also In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious); Ryco, Inc. v. Aq-Bag Corp., 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988) (Claimed agricultural bagging machine, which differed from a prior art machine only in that the brake means were hydraulically operated rather than mechanically operated, was held to be obvious over the prior art machine in view of references which disclosed hydraulic brakes for

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performing the same function, albeit in a different environment ). See also MPEP § 2183.

Regarding to claim 35, Van Dau discloses the magnetic sensor comprising all claimed limitations, as discussed above, except for further comprising a first write bit line and a second write bit line electrically isolated from the magnetic bit cell by an insulating layer.

Taguchi discloses a magnetic thin film device, shown in figs. 11, 16, 17, comprising a magnetic thin film active area 11, 12, or 13 (fig. 11), a first pair of conductive leads 2a, 2b, or 2c on opposing sides of the active layer for driving electrical current across the active area in a first direction, and a pair of lead 3a, 3b, or 3c on opposing sides of the active layer for measuring voltage across the active area in a second direction perpendicular to the first direction (fig. 16). Taguchi further discloses a first write bit line 4 and a second write bit line 5 (fig. 17) electrically isolated from the magnetic bit cell by an insulating layer. See col. 7, line 1-col. 8, line 33.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Van Dau so that it would include two write bit lines, as write bit lines 4, 5 taught by Taguchi, in order to better control the magnetization of the magnetic film, thereby a better performance device would be obtained. See col. 7, line 1-col. 8, line 33 of Taguchi.

Regarding to claims 36, and 39-42, Van Dau/Tauchi discloses the device comprising all of the claimed limitations. See the rejections of claims 17 and 20-23.

### Conclusion

11. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to become abandoned (see M.P.E.P 710.02(b)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dao H. Nguyen whose telephone number is (571)272-1791. The examiner can normally be reached on Monday-Friday, 9:00 AM – 6:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Loke, can be reached on (571)272-1657. The fax numbers for all communication(s) is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1633.

/DAO H NGUYEN/

Primary Examiner, Art Unit 2818  
October 29, 2008

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Deleted: Claim(s) \*\*\* is/are rejected under 35 U.S.C. 103 (a) as being unpatentable over admitted prior art (Admission) in view of \*\*\*.¶  
Admission discloses \*\*\*.¶

¶ Allowable Subject Matter¶  
¶

¶ Claim(s) \*\*\* is/are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, since the prior art of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed \*\*\* (in addition to the other limitations in the claim) \*\*\*.¶

¶ Reasons for Allowance¶  
¶

¶ Claim(s) \*\*\* would be allowed. ¶  
The following is an examiner's statement of reason for allowance: ¶  
None of the references of record teaches or suggests the claimed \*\*\* (in combination set forth in the claim) \*\*\*.¶  
None of the references of record teaches or suggests the claimed \*\*\* (in combination set forth in the claim) \*\*\*.¶

¶ Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance". ¶

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¶ OBVIOUSNESS RATIONALE ¶  
COMMON SENSE \*\*\* discloses the claimed invention except for \*\*\*. It would have been an obvious matter of design choice to \*\*\*; since applicant has not disclosed that \*\*\* solves any stated problem or is for any particular purpose and it ap... [1]

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